

Military Healthcare Ethics - What is New?

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Abstract

This paper reviews the field of military healthcare ethics since the 2022 review paper published in this journal. NATO STANAG, AMedP-8.19 Military Healthcare Ethics, was published in June 2025. 'Dual loyalty' remains at the heart of ethical tensions for military health professionals (MHPs). Current wars in Ukraine and the Middle East challenge the value of International Humanitarian Law (IHL) to protect healthcare workers, transportation and facilities. However, compliance with IHL remains at the heart of national military law. Triage remains core to managing demand during mass casualty events. However, the broader experience of allocating scarce resources during COVID-19 suggests that existing assumptions around military MASCAL triage should be subject to formal ethical review. There has been a flurry of academic papers on ethical issues in Global Health Engagement that should inform military healthcare policy. This paper also notes emerging ethical issues associated with advanced biomedical technologies and the application of artificial intelligence (AI) in military healthcare. This paper closes by highlighting the growing recognition of moral injury as a risk to MHPs and the need to address ethical vulnerabilities and pressures on professional integrity through formal education in MHE.

Keywords: international humanitarian law, military healthcare ethics, dual loyalty, triage, moral injury.

Introduction

This narrative review builds on the previous paper on military medical ethics published in the *JMVH* in 2022, which summarised current thinking on the subject and highlighted key topics in the deployed environment, wider military healthcare and military health policy.¹ This paper is based on a workshop held during the International Committee of Military Medicine (ICMM) World Congress of Military Medicine in September 2024, which was co-organised by the authors. It has been augmented by a literature search for the terms 'military medical ethics' and 'military healthcare ethics' in Google Scholar for papers published after 1 January 2021 through to 1 June 2025. The aim is to capture significant changes, particularly resulting from recent conflicts and the publication of the NATO Standardisation Agreement (STANAG) on Military Healthcare Ethics, STANAG 6562 AMedP-8.19, in June 2025.² AMedP-8.19 summarises the principles of the Law of Armed Conflict (LoAC) and International Humanitarian Law (IHL) and emphasises the role of national law and professional regulation in implementing these agreements. It then provides an overview of the evolution of the topics presented in the first paper published in the *JMVH*. It concludes with a possible framework for making ethical decisions in military healthcare practice and a suggested educational curriculum. It is suggested that many of the issues that have emerged since the first paper represent

developments in scale, complexity or technological mediation rather than entirely new ethical categories.

In 2023, it was proposed to change the term 'military medical ethics' to 'military healthcare ethics' (MHE) in order to encourage all members of the military healthcare team (doctors, nurses and allied health professionals such as medics, paramedics, physiotherapists and pharmacists) to be engaged with the subject as it pertains to their practice.³ This recognises the importance of framing clinical and field training for military health professionals (MHPs) as interprofessional healthcare teams rather than autocratic, doctor-led medical units.⁴ While many issues in MHE reflect the enduring nature of healthcare practice in the military context, the actual character of practice will change as the character of war and biomedical technologies evolve.⁵ The complexity of 'dual loyalty' for the non-combatant MHP remains central to MHE. Michael Reade's recent paper, reprinted in this journal, emphasised the importance of MHPs maintaining the same professional ethics as their civilian peers in meeting public expectations of behaviour during war.⁶ These debates have also continued in the US academic literature.⁷⁻⁸ A recent paper from Russian medical literature provides a salient reminder of the risks to patients from autocratic or militaristic clinical decision-making, lack of informed consent and the absence of an ethical framework for medical practice.⁹

International Humanitarian Law (IHL)

Since the original publication, Russia attempted to annex Ukraine in 2022, and both countries are currently in a devastating war of attrition. Hamas conducted an incursion from Gaza into Israel in 2023. Subsequently, Israeli forces have devastated the Gaza Strip, violence in the West Bank has escalated, Israeli forces have undertaken offensive operations in Lebanon, and Israel and the US have attacked Iran. The previous paper described the terms *'jus ad bello'* and *'jus in bellum'* to contrast the elements of international law and conventions governing the decision to go to war with those governing the conduct of war. These new wars have posed questions regarding the accountability of states to comply with the principles of distinction, proportionality and humanity in LoAC in order to protect non-combatants, health services and the infrastructure that is critical for civilian society.¹⁰ MHPs must understand their personal legal and ethical duties in the face of such institutional challenges to IHL.

War will always have a devastating impact on public health. Ethicists continue to argue that war is morally objectionable, that every effort should be made to prevent it, and that governments and militaries should be continually reminded of their moral responsibilities regarding war.¹¹⁻¹² This not only includes the use of the 'military instrument' of power, but also other instruments of power, such as sanctions as an 'economic instrument'. Although economic warfare can constrain the capacity of adversaries to fight, it is important that sanctions and other economic 'weapons' do not impact on societal functions that are protected under IHL, such as health services.¹³ Military healthcare personnel should be wary of expressing personal opinions in public regarding the political decision to use military force as an act of war, *'jus ad bello'*. However, they should have a professional interest in the legal and constitutional basis of such a decision in order to decide for themselves whether they wish to remain in the armed forces and be subject to military law. It may be more difficult to 'withdraw labour' in times of national emergency or conscription. Professional regulatory bodies may be the last recourse in the maintenance of ethical practice among healthcare professionals.

MHE during war

The war in Ukraine has provoked an active debate in the military medical literature regarding the character of future large-scale combat operations (LSCO) and the need for NATO and allied military medical

services to adapt from the experiences derived from the war in Afghanistan. Many commentators have noted the lack of protection afforded by the Geneva Emblems (Red Cross, Red Crescent, Red Crystal) and the impression that some state armed forces deliberately attack health facilities, personnel and transports in order to undermine morale and the will to fight.¹⁴⁻¹⁵ This reality has substantial implications for the tactics military health services employ to hide and protect themselves on the battlefield in order to survive. While the advent of drones and robotic vehicles has made the 'zone of contact' increasingly lethal and more dispersed, they can be used for medical evacuation roles to reduce the risk to drivers and medical escorts. A recent narrative review has identified five themes for consideration in preparation for their introduction within military health services: 1) enemy drone tactics on force protection and medical evacuation; 2) possible drone use for medical resupply especially for highly sensitive commodities such as blood; 3) autonomous vehicle applications in casualty evacuation; 4) integration challenges with airspace and ground control systems; and 5) risks of interference with medical systems from electronic warfare and counter-drone measures.¹⁶ In the future, MHPs are likely to be at higher personal risk than experienced in recent wars. They will have to operate more closely with the military tactical plan and may experience the realities of war much more intimately. The physical and mental health consequences of war will happen to them as well as their patients.

The original paper emphasised the duty of states to provide suitable care for detainees and prisoners of war in accordance with the Third Geneva Convention on prisoners of war. There have been several papers expressing concern over the treatment of prisoners of war by both sides during the war in Ukraine.^{17,18} This has also been debated in respect of the duties of the Israeli state regarding detainees captured during the war in Gaza.^{19,20} It remains important for MHPs to understand their duties under the Third Geneva Convention.

Military operations other than war

The COVID-19 pandemic presented most national healthcare systems with legal and ethical dilemmas that are usually reserved for war. The initial wave of patients required an unprecedented expansion of acute health services capacity, which rapidly extended to augment out-of-hospital care for the socially vulnerable. Clinicians had to triage patients for emergency care and respiratory intensive care.²¹ By default, urgent but non-emergency care for non-COVID conditions was deferred or implicitly 'deleted', resulting in a significantly longer-term

excess mortality for non-COVID conditions. New processes for rapid ethical approval of clinical trials were introduced.²² Populations were encouraged to report their personal health status to national electronic databases, and some armed forces used these to report the fitness of their personnel.²³ The introduction of COVID-19 vaccination created choices regarding the allocation of initial doses and the compulsory vaccination of public-facing health and social staff, including the armed forces.²⁴ It also saw extensive civil-military cooperation in the use of military healthcare and general duties personnel as an augmentation to the national response.²⁵ Many of these consequences resulted from explicit and implicit decisions that posed significant ethical dilemmas.²⁶ In some countries, the clinicians' consensus was undermined by political leaders, creating significant stress when implementing policy in clinical practice. It is likely that a future health crisis, including a major conflict, will pose similar challenges, for which the COVID-19 pandemic can provide relevant lessons for the ethical allocation of health resources in the face of overwhelming need.

Triage decision-making is the most obviously corollary between COVID-19 and conflict as health crises. For perhaps the first time in their careers, many western health providers had to make the true life and death decisions usually reserved for military health personnel or those in resource-scarce specialities such as intensive care, transplant services and neonatal care. Both crises create unprecedented demand on the health system from the point of injury/illness through the whole care pathway to rehabilitation and recovery. In the first instance, prioritisation for access to immediate care may shift from individual clinical urgency to a population perspective of 'the most for the most'. This is the essence of mass casualty triage and the introduction of the P4/T4 Expectant classification for casualties. This is defined as 'those who are expected to die given the circumstances of the Major Incident/MASCAL. They will receive appropriate supportive treatment and palliative care'.²⁷ The use of this triage classification requires training as it involves a challenging clinical judgement for healthcare professionals.²⁸ Triage is a function that may need to occur across the military health system and has ethical implications for planning capacity and capability for surgical²⁹ and intensive care services^{30,31} as two examples, after a casualty's care in the emergency department. A new term, 'reverse triage', has recently emerged in the debate about triage in LSCO. This suggests that, in LSCO, triage might be reversed entirely on utilitarian grounds to shift the medical effort's focus from saving lives to treating

casualties whose injuries are sufficiently minor that they could return to combat.³² This approach might align with some of the ethical discussions during COVID that suggested that pre-infection measures of quality of life, such as age, co-morbidity and physical or mental functioning, might be factors to inform the allocation of medical resources for the treatment or care of COVID-19 patients.³³

There has been an increase in the number of papers examining the role of MHPs in health programs with allies and partners under the term 'Global Health Engagement (GHE)'. This also includes discussion of the ethics of such activities to ensure the primacy of the clinical purpose and benefit to patients over any military or diplomatic objectives.³⁴⁻³⁵ It is important to avoid providing short-term clinics that offer no clinical benefit, and that may undermine the economics of local healthcare provision. While a longer-term commitment, the focus should be on military-to-military health partnerships that support indigenous capacity building, such as training in tactical combat casualty care, medical planning and healthcare ethics. As many countries' military health systems collaborate with their civilian health systems, GHE can also have indirect benefits for the whole health system by extending military capacity-building activities to civilian healthcare workers or using indigenous military partners as a bridge to support civilian health services.

GHE is also a feature of Irregular Warfare (IW) within civil-military operations and security cooperation. A recent literature review highlighted topics such as the ethics of care, international law and conventions, the weaponisation of healthcare, the targeting of hospitals and medical personnel, and the provision of healthcare in host countries as important policy issues in medical support to IW.³⁶ The international effort to provide evacuation and reception for large numbers of Afghan refugees from Kabul in August 2021 was another humanitarian relief mission that posed significant ethical challenges. Medical personnel faced tensions between implementing timely public health measures with mission urgency, delivering sufficient and appropriate medical care, and cultural barriers to healthcare provision by military providers.³⁷ Humanitarian operations, global health diplomacy and civil-military operations are always likely to cause ethical dilemmas for MHPs.

MHE outside military operations

The previous review paper distinguished MHE in garrison or non-combat situations as separate from MHE during conflict. In reality, there are many overlaps, and this paper uses the phrase 'MHE

outside military operations' to cover ethical issues in garrison healthcare, health policy and military health research. The policy for allocation and administration of COVID-19 vaccinations for the armed forces was the most significant occupational health policy issue in military healthcare of the last few years. Many countries granted preferential access to COVID-19 vaccination for military personnel and made it a mandatory requirement of military employment. This was intended to protect individuals and reduce the likelihood of outbreaks in military units, thereby maintaining military capability for both military operations and for supporting civilian-led efforts to control the disease. However, this was also perceived to be contrary to individuals' rights of choice and consent in light of the low personal risk of harm arising from a COVID-19 infection in the military population.³⁸ The ethical dimensions of preventive medicine interventions in the armed forces are likely to continue to be an important policy issue, especially in the context of compensation claims for alleged adverse health outcomes from vaccination programs in the first Gulf War and the use of mefloquine as an antimalarial. MHPs will need to understand the reasons for health protection policies and ensure that consent for such interventions is appropriately informed.

Emerging biomedical technologies may offer opportunities to enhance military performance through invasive medical interventions, such as drugs, neural implants or other brain-computer interfaces.³⁹ There is now an emerging body of research to define the views of both military personnel and MHPs on the ethics and suitability of such measures, including consent, health monitoring and long-term follow-up.⁴⁰⁻⁴¹ This also applies to 'precision medicine', which might provide insights into an individual's future health risks or vulnerabilities, or to the armed forces obtaining unique insights from biodata banks that could be used for intelligence or other military benefits.⁴²

Artificial Intelligence (AI) software has the potential to dramatically transform healthcare education and clinical practice. AI also has the potential to change the character of conflict through the automation of military decision-making and the increased speed and effectiveness of weapon targeting. As such, there are similarities in the benefits and risks of using AI to support decision-making in both the medical and the military fields, and the need for frameworks to codify the ethics that should underpin the incorporation of AI in practice. One such framework can be summarised as 'GREAT PLEA': governability, reliability, equity, accountability, traceability, privacy, lawfulness, empathy and autonomy.⁴³ AI has the potential to

harness and access unique insights from datasets in military medicine to rapidly generate new knowledge that supports clinical practice. This could enhance clinical care by enabling clinicians to practice at 'the top of their licence' by devolving decision making based on AI tools. However, these possibilities need to be balanced with trust, oversight and ethical policies for their use.^{44,45} At a practical level, military healthcare education needs to embrace the imminent reality of adopting AI tools. Practitioners must be aware of the opportunities and limitations of AI in general and be enabled to utilise AI tools when formally adopted within military health systems.⁴⁶

The consequences: 'moral problems'

The previous article in this journal observed the risk of moral injury among MHPs and that education and training on MHE may reduce this risk. Moral injury and its subclinical manifestation, moral distress, have been well described in military populations since the late 2000s⁴⁷ and have been the subject of much research over the subsequent years.⁴⁸ An international consortium, including Australian researchers, has developed a diagnostic tool—the Moral Injury Outcome Scale (MIOS)—to measure the outcomes of potentially morally injurious events (PMIE).⁴⁹ This scale has been used to estimate the prevalence of moral distress and moral injury in US veterans. The prevalence among those who specifically identified their exposure to a PMIE was 9.1% for moral distress and 13.1% for moral injury, with an overall prevalence of PMIE symptoms of 4.1% and 5.9%, respectively, in all veterans.⁵⁰ The growing body of research around moral injury has led to a proposed new definition of moral injury as: 'persistent distress that arises from a personal experience that disrupts or threatens: a) one's sense of the goodness of oneself, of others, of institutions, or of what are understood to be higher powers, or b) one's beliefs or intuitions about right and wrong, or good and evil'.⁵¹

Similarly, the term 'moral problem' has been added to the existing 'religious or spiritual problem' in the 'other conditions that may be a focus of clinical attention' codes within the Diagnostic and Statistical Manual of Mental Disorders (DSM-5-TR), September 2025 updates.⁵² Thus 'moral problems' are the occasions when an individual may face difficult choices resulting in the psychological tension of 'moral distress' and 'moral injury' being the resulting clinical harm. The Australian Royal Commission into Defence and Veteran Suicide reflected the growing interest in moral injury by dedicating an entire chapter to the subject.⁵³ It recommended that Defence and the Department of Veterans' Affairs work to minimise the impact of moral injury, including

by 'implementing education, training and support programs with the explicit objectives of preventing, minimising and treating moral injury'.

The increased risk of moral distress and moral injury to healthcare workers during the COVID-19 pandemic, first recognised very early in 2020,⁵⁴ has led to a significant increase in research on this topic. Studies comparing healthcare workers to military veterans demonstrated that both groups were at high risk of being exposed to PMIEs and, therefore, the risk of moral distress and moral injury,⁵⁵ as were first responders.⁵⁶ This paper on MHE has described topics that may present additional ethical and moral problems for MHPs beyond those faced by civilian health professionals or military personnel, including dual loyalty, command influence and MASCAL or low-resource environments. Minimal research has been conducted on the risk of moral injury among MHPs; however, this group is potentially at even greater risk than other groups due to the unique nature of their service.^{57,58} More research is required to quantify this risk of moral injury, but it has already emphasised the importance of ensuring that MHPs are appropriately trained, educated, prepared and supported in the ethical dimensions of the roles they must undertake.

MHE education

As mentioned earlier, AMedP-8.19 contains a chapter on training and education supported by two Annexes. The first Annex describes an analytical framework that provides a holistic approach to decision making, decision recording and problem analysis in MHE. This proposed four perspectives to be considered: 1) the patient's, 2) the clinical, 3) the legal and 4) the military/societal. A fuller description of this framework was published in 2024.⁵⁹ The second Annex provides an indicative curriculum that NATO member nations may use to create an educational program for MHE for their MHPs.

Even though there is concern over the utility of LoAC as a guideline for the use of force, many armed forces still teach the subject and military ethics to their personnel. This includes the Australian Defence Force, where some limited training is undertaken as part of the single Services training courses. This can lead to inconsistencies and potential conflict between MHPs during joint deployments. While the Australian Army rightly emphasises the importance of training in ethical decision making for all its personnel, no particular attention appears to have been paid to its MHPs.⁶⁰

David Whetham's recent paper summarises the topic of military ethics across three components: the individual in the military profession; the profession at work; and the profession in society.⁶¹ He also describes the importance of teaching ethics in the context of professional and personal behaviour, based on small group discussions and personal reflection rather than purely didactic transmission of information. These educational principles also apply to teaching ethics to healthcare professionals. A systematic review of papers on education approaches to support ethical competence learning in healthcare also emphasised the importance of case studies, scenarios and group discussions.⁶² Edmund Howe has provided a comprehensive review of his experience teaching medical ethics across a range of themes at the Uniformed Services University of Health Sciences (USUHS) in the US.^{63,64} He strongly argues that students should have materials to discuss and debate in discussion groups to prepare for future careers in both medicine and the military, where new, unanticipated ethical issues will continue to arise. At the most basic level, all MHPs must be taught triage concepts in the military context and to recognise other clinical and organisational scenarios that will cause personal and professional tension.⁶⁵ This is evident in the approach taken to develop Teaching Assistants for the Advanced Combat Medical Experience course for undergraduates at the Uniformed Services University of the Health Sciences and a proposed centralised pre-hospital medical directors course for senior emergency medicine physicians.^{66,67} We launched a new edition of the King's Military Healthcare Ethics App at the ICMM World Congress of Military Medicine in 2024 as a free library of scenarios to support education in MHE. It is important to monitor the effectiveness of such educational interventions, especially if they are likely to reduce the risk of moral injury. These interventions may need to be specifically tailored to the professional roles, ranks and responsibilities of MHPs within a military health system.

Conclusion

This paper provides an update on contemporary issues in MHE and builds on the themes from the paper published in the JMVH in 2022. It highlights the recently published AMedP-8.19 on MHE as a source of guidance for MHE for NATO members and partners. MHPs will inevitably face ethical tensions both because of their 'dual loyalty' to the military and health professions, and because of the changing nature of warfare. The issues highlighted in this paper do not represent a fundamental new approach towards MHE, but rather an explanation

that the increased threats to national security have changed the context, pace of change, technological integration and cumulative moral burden that may face MHPs in the future. Readers of this paper should consider how they and their organisations embed MHE education into their MHP educational programs to improve their resilience and operational effectiveness.

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